

Appln. Serial No. 09/977,038
Amendment dated January 31, 2006
Reply to Office Action Mailed December 1, 2005

REMARKS

In the Office Action dated December 1, 2005, claim 7 was rejected under 35 U.S.C. § 101; claim 1 was objected to under 37 C.F.R. § 1.75(c); and claims 1-21, 40, and 43-46 were rejected under 35 U.S.C. § 102 over U.S. Patent No. 6,366,903 (Agrawal).

Applicant acknowledges the indication that Group I (claims 1-21 and 46) and Group V (claims 40 and 43-45) have been examined together and are pending in the present application. Claims 22-39 have been cancelled in favor of submission in divisional application(s).

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SUMMARY OF TELEPHONIC INTERVIEW

On January 26, 2006, a telephonic interview was conducted between the undersigned and the Examiner. In the telephonic interview, the § 101 rejection and the objection of claim 1 were discussed.

No prior art references or exhibits were discussed in the telephonic interview.

The Examiner indicated that adding "processor" to claim 7 would overcome the § 101 rejection.

With respect to the objection of claim 1, the Examiner indicated that use of the term "system" in "test system" and "database system" as recited in claim 1 rendered those claims too broad and indefinite such that the separateness of the "test system" and the "database system" could not be understood. Applicant pointed out that a person of ordinary skill in the art would understand the meanings of the terms "test system" and "database system" and how such systems are separate. No agreement was reached with respect to the objection of claim 1.

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REJECTION UNDER 35 U.S.C. § 101

Although the Office Action rejected claim 7 under § 101, the language quoted actually referred to language of claim 1, not claim 7. In an effort to move prosecution along, Applicant has amended both claims 1 and 7 by adding "at least one processor" into the claims. This amendment does not change the substantive scope of the claims with respect to the prior art references – therefore, a new search would not be necessitated by the amendment made to claims 1 and 7. Therefore, it is respectfully requested that the amendment of claims 1 and 7 be entered for purposes of appeal, since such amendment removes an issue from appeal (namely the § 101 rejection).

In view of the amendment and the indication by the Examiner during the telephonic interview that adding "processor" would overcome the § 101 rejection, withdrawal of the § 101 rejection is respectfully requested.

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CLAIM OBJECTION

Applicant respectfully disagrees with the assertion made in the Office Action that the meaning of the language "a database system separate from the test system" is unclear. In view of what a person of ordinary skill in the art would understand the term "system" to mean in the context of claim 1, and in view of the specification of the present application, it is respectfully submitted that the recited language of claim 1 is clear. Attached to this Reply are various definitions for the term "system" provided by the Encarta Dictionary. Among the definitions for "system" is a definition of "system" in the computer context (definition 8), and a definition for "system" in the engineering context (definition 9). In the computer context, the Encarta Dictionary defines "system" as "set of computer components: an assembly of computer hardware, software, and peripherals functioning together." In the engineering context, the Encarta Dictionary defines "system" as "assembly of components: an assembly of mechanical or electronic components that function together as a unit." Based on these ordinary definitions of "system," as understood by a person of ordinary skill in the art, and based on consistent usage of the term in the present specification (especially Fig. 1 and accompanying text), it is clear that a person of ordinary skill in the art would understand what "a database system separate from the test system" means in the context of the present invention.

In view of the foregoing, withdrawal of the objection is respectfully requested.

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REJECTION UNDER 35 U.S.C. § 102

It is respectfully submitted that claim 1 is not anticipated by Agrawal. Agrawal does not disclose a test system that has an emulation module to receive environment information of a database system *separate from the test system*, where the emulation module is to emulate an environment of the database system based on the environment information. As clearly recited in claim 1, this emulation module is part of the test system that is separate from the database system.

There is no such emulation module in a test system separate from a database system disclosed in Agrawal. The Office Action cited element 240 of Agrawal (depicted in Fig. 2 of Agrawal) as being the emulation module of claim 1. Note that element 240 of Agrawal is the configuration simulation and cost estimation module that is part of the optimizer of the database server 245 in Fig. 2 of Agrawal. Agrawal, 7:48-51. In other words, the module 240 is actually part of the database server (or database system) in Fig. 2 of Agrawal. Therefore, the module 240 cannot be considered the emulation module of claim 1, which must be in a test system that is separate from the database system. In Agrawal, the module 240 is actually part of the database system.

Agrawal further discloses a candidate selection module 225 (also shown in Fig. 2 of Agrawal) that receives cost information regarding candidates relative to the workload and the server from the configuration and simulation cost estimation module 240. Agrawal, 7:51-53. This candidate selection module 225 is part of a group of components identified generally as 210 in Fig. 2 of Agrawal. However, there is no indication in Agrawal that any of the components indicated generally as 210 performs *the following task*: emulate an environment of the database system based on the received environment information of the database system. There is absolutely no indication anywhere within Agrawal that any emulation is being performed by the components in 210 in Fig. 2 of Agrawal.

It is therefore clear that Agrawal thus does not disclose the emulation module of claim 1. Agrawal also fails to disclose a first module executable in the emulated environment, and a second module executable in the emulated environment.

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In view of the foregoing, it is respectfully submitted that claim 1 is not anticipated by Agrawal.

Independent claim 7 is also not anticipated by Agrawal. Claim 7 recites a first module to eliminate one or more candidate indexes based on one or more predetermined criteria, where the one or more predetermined criteria comprises a threshold change rate, and where the first module eliminates one or more candidate indexes having a change rate exceeding the threshold change rate.

In the rejection of claim 7, the Office Action cited column 10, lines 34-67, and column 15, lines 50-58, of Agrawal as disclosing the "threshold change rate." 12/1/2005 Office Action at 7. The cited passage in column 10 refers to a predetermined cost threshold (10:63) that is used for pruning or eliminating "uninteresting" table-subsets, which are subsets of tables referenced in a query of a workload (8:45-46). The cost threshold identified in the column 10 passage is not a threshold change rate. Moreover, eliminating subsets of tables referenced by a query of a workload is *not* the same as eliminating one or more candidate *indexes* based on the threshold change rate.

The cited column 15 passage of Agrawal refers to a fraction *f* of the total storage to be allocated to indexes (15:44-45). The fraction of total storage for allocation to indexes is not a threshold change rate as recited in claim 7. Moreover, there is no teaching in column 15 of Agrawal that this fraction of total storage is used for eliminating candidate indexes.

In view of the foregoing, it is respectfully submitted that claim 7 is not anticipated by Agrawal.

Independent claim 40 is also not anticipated by Agrawal, which does not disclose eliminating candidate indexes that are changed with updates at a rate greater than a predetermined change rate threshold. Also, there is no teaching Agrawal of eliminating a candidate index that is a subset of another candidate index.

Dependent claims are allowable for at least the same reasons as corresponding independent claims.


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Allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 14-0225 (10150).

Respectfully submitted,

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Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Suite 100
Houston, TX 77024
Telephone: (713) 468-8880
Facsimile: (713) 468-8883